

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>PU3375/WO</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/EP 98/ 06278</b>	International filing date (day/month/year) <b>05/10/1998</b>	(Earliest) Priority Date (day/month/year) <b>07/10/1997</b>
Applicant <b>GLAXO GROUP LIMITED et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 8 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☒ Unity of invention is lacking (see Box II).

**4. With regard to the title,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

**5. With regard to the abstract,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. The figure of the drawings to be published with the abstract is Figure No.**

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP 98/06278

## Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See annex

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

2-3, 6-7, 10, and partially: 1, 5, 9

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 98/06278

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 A61K31/00 A61K31/435 A61K31/40 A61K31/47 A61K31/495  
A61K31/55

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 92 12149 A (SMITHKLINE BEECHAM PLC) 23 July 1992 (1992-07-23) page 12, line 5 ---	1,5,9
X	WO 92 11259 A (BEECHAM GROUP PLC) 9 July 1992 (1992-07-09) page 11, column 6 ---	1,5,9
X	WO 92 10494 A (BEECHAM GROUP P.L.C.) 25 June 1992 (1992-06-25) page 10, line 16 ---	1,5,9
X	EP 0 387 431 A (BEECHAM GROUP PLC) 19 September 1990 (1990-09-19) page 8, line 43 --- -/--	1,5,9

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## ° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&amp;" document member of the same patent family

Date of the actual completion of the international search

31 March 1999

Date of mailing of the international search report

23.07.99

Name and mailing address of the ISA

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THEUNS, H

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 98/06278

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 92 05174 A (BEECHAM GROUP PLC) 2 April 1992 (1992-04-02) page 17, line 14 ---	1,5,9
X	EP 0 377 967 A (BEECHAM GROUP PLC) 18 July 1990 (1990-07-18) page 8, line 11 ---	1,5,9
X	EP 0 385 722 A (GLAXO GROUP LIMITED) 5 September 1990 (1990-09-05) page 4, line 44 ---	1,5,9
X	EP 0 364 274 A (GLAXO GROUP LIMITED) 18 April 1990 (1990-04-18) page 4, line 33 ---	1,5,9
X	EP 0 357 416 A (GLAXO GROUP LIMITED) 7 March 1990 (1990-03-07) page 3, line 1 ---	1,5,9
X	EP 0 347 229 A (GLAXO GROUP LIMITED) 20 December 1989 (1989-12-20) page 4, line 50 ---	1,5,9
X	WO 89 09217 A (BEECHAM GROUP PLC) 5 October 1989 (1989-10-05) page 11, line 10 ---	1,5,9
X	EP 0 336 759 A (GLAXO GROUP LIMITED) 11 October 1989 (1989-10-11) page 4, line 24 ---	1,5,9
X	EP 0 254 584 A (BEECHAM GROUP PLC) 27 January 1988 (1988-01-27) page 14, line 13 ---	1,5,9
X	EP 0 279 512 A (BEECHAM GROUP PLC) 24 August 1988 (1988-08-24) page 4, line 8 - line 10 ---	1,5,9
X	EP 0 315 390 A (BEECHAM GROUP PLC) 10 May 1989 (1989-05-10) page 9, line 51 ---	1,5,9
X	WO 94 01095 A (SMITH-KLINE BEECHAM PLC) 20 January 1994 (1994-01-20) page 1, line 24 ---	1,5,9
X	EP 0 306 323 A (GLAXO GROUP LIMITED) 8 March 1989 (1989-03-08) page 4, line 26 & GB 2 209 335 A cited in the application ---	1-3,5-7, 9,10
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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 98/06278

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	K. BARDHAN ET AL.: "A DOUBLE-BLIND, PLACEBO-CONTROLLED STUDY TO EVALUATE THE EFFOCACY OF ALOSETRON IN THE TREATMENT OF IRRITABLE BOWEL SYNDROME (IBS)" GASTROENTEROLOGY, vol. 110, no. 4, April 1996 (1996-04), page A630 XP002098634 abstract	1-3,5-7, 9,10
X	--- J.M. FOSTER ET AL.: "ALOSETRON SLOWS COLONIC TRANSIT IN PATIENTS WITH IRRITABLE BOWEL SYNDROME (IBS)" GASTROENTEROLOGY, vol. 112, 11 - 14 May 1997, page A732 XP002098635 abstract	1-3,5-7, 9,10
X	--- D.G.MAXTON ET AL.: "Selective 5-hydroxytryptamine antagonism: a role in irritable bowel syndrome and functional dyspepsia?" ALIMENT.PHARMACOL.THER., vol. 10, no. 4, August 1996 (1996-08), pages 595-599, XP002098636 the whole document	1-3,5-7, 9,10
X	--- J. ZIGHELBOIM ET AL.: "Visceral Perception in Irritable Bowel Syndrome" DIG.SIS.SCI., vol. 40, no. 4, April 1995 (1995-04), pages 819-827, XP002098637 page 819 - page 820	1-3,5-7, 9,10
X	--- C.J.STEADMAN ET AL.: "Selective 5-Hydroxytryptamine Type 3 Receptor Antagonism With Ondansetron as Treatment for Diarrhea-Predominant Irritable Bowel Syndrome: A Pilot Study" MAYO CLINIC PROC., vol. 67, no. 8, August 1992 (1992-08), pages 732-738, XP002098638 abstract	1-3,5-7, 9,10
X	--- P.H.HSYU ET AL.: "SAFETY AND AGE, GENDER, AND TIME DEPENDENT PHARMACOKINETICS OF ALOSETRON" PHARMACEUTICAL RESEARCH, vol. 12, no. 9 Suppl., September 1995 (1995-09), page S387 XP002098639 abstract	1-3,5-7, 9,10
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International Application No

PCT/EP 98/06278

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	M. DELVAUX ET AL.: "Effect of alosetron on responses to colonic distension in patients with irritable bowel syndrome" ALIMENT.PHARMACOL.THER., vol. 12, no. 9, September 1998 (1998-09), pages 849-855, XP002098640 abstract	1-3,5-7, 9,10
A	--- R.BERKOW ET AL., ED.: "THE MERCK MANUAL OF DIAGNOSIS AND THERAPY, 16th edition" 1992, MERCK RESEARCH LABORATORIES, RAHWAY, N.J. XP002098642 page 841 - page 845	1-3,5-7, 9,10
T	--- A.R.NORTH CUTT ET AL.: "ALOSETRON, A 5HT3-RECEPTOR ANTAGONIST, IS EFFECTIVE IN THE TREATMENT OF FEMALE IRRITABLE BOWEL SYNDROME PATIENTS" GASTROENTEROLOGY, vol. 114, no. 4 Part 2, April 1998 (1998-04), page A812 XP002098641 abstract -----	1-3,5-7, 9,10

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Information on patent family members

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No

PCT/EP 98/06278

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**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

1. Claims: 2-3, 6-7, 10, and partially: 1, 5, 9

Use of alosetron

2. Claims: 1, 4-5, 8-9 (all partially)

Use of granisetron

3. Claims: 1, 4-5, 8-9 (all partially)

Use of azasetron

4. Claims: 1, 4-5, 8-9 (all partially)

Use of tropisetron

5. Claims: 1, 4-5, 8-9 (all partially)

Use of ramosetron

6. Claims: 1, 4-5, 8-9 (all partially)

Use of ondansetron

7. Claims: 1, 4-5, 8-9 (all partially)

Use of lerisetron

8. Claims: 1, 4-5, 8-9 (all partially)

Use of (R)-zacopride

9. Claims: 1, 4-5, 8-9 (all partially)

Use of cilansetron

10. Claims: 1, 4-5, 8-9 (all partially)

Use of itasetron

11. Claims: 1, 4-5, 8-9 (all partially)

Use of indisetron

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

12. Claims: 1, 4-5, 8-9 (all partially)

Use of dolasetron

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 206

Although claims 5-8 are directed to a method of treatment of the human/animal body, the search has been based on the alleged effects of the compound/composition.

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